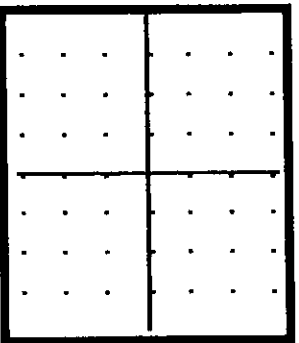


## Introduction to Slope Fields

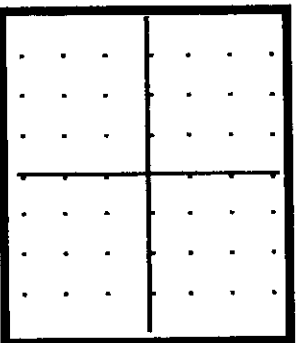
For each differential equation given below:

1. Plot the **slope field** on the grid provided.
2. Suppose that you know that the point given is on a particular solution of the differential equation. By following the slopes, draw on your slope field what you think the **particular solution** looks like. (Note: The graph should follow the pattern of the slope field but may go between the points rather than through them.)
3. Solve the differential equation **algebraically**. Find the particular solution that contains the point given. Does your solution make sense to your graph of the slope field?

a.  $\frac{dy}{dx} = -x$ ,  $(-2, -1)$



b.  $\frac{dy}{dx} = \frac{1}{x}$ ,  $(1, 1)$



c.  $\frac{dy}{dx} = -\frac{x}{y}$ ,  $(2, -2)$

